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Mail Stop Amendment Commissioner for Patents

P.O. Box 1450 Alexandria, VA 22313-1450

TOWNSEND and TOWNSEND and CREW LLP

PADEMA

PATENT Attorney Docket No.: 016930-000816US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

OCT. 2 7 2006

In re application of:

Heidrun Engler et al.

Application No.: 10/055,863

Filed: January 22, 2002

For: COMPOSITIONS AND METHODS FOR ENHANCING DELIVERY OF THERAPEUTIC AGENTS TO CELLS

Confirmation No.: 4929

Examiner: Elli Peselev

Art Unit: 1623

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER

37 CFR §1.97 and §1.98

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. The following copies of the references [in compliance with the requirements of 37 CFR §1.98(a)(2)] are enclosed:

A13. BLAESE et al., "Vectors in Cancer Therapy: How Will They Deliver?" Cancer Gene Therapy, 1995, Vol. 2, No. 4, pp. 291-297;

A14. BRAMSON et al., "The USe of Adenoviral Vectors for Gene Therapy and Gene Transfer in Vivo," Current Opinion in Biotechnology, 1995, Vol. 6, pp. 590-595;

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Heidrun Engler et al.

Application No.: 10/055,863

Page 2

A15. van BUREN et al., "Inactivation of Human Immunodeficiency Virus Type 1 by Alcohols," October 1994, Vol. 28, No. 2, pp. 137-148;

- A16. CALBIOCHEM, "Biochemical/Immunochemical 1992 Catalog," Calbiochem Biochemicals, 1992, pp. 322, 05, 65, 259;
- A18. CORDIER et al., "Complete Recovery of Mice from a Pre-established Tumor by Direct Intratumoral Delivery of an Adenovirus Vector Harboring the Murine IL-2 Gene," Gene Therapy, 1995, Vol. 2, pp. 16-21.
- A19. CROYLE et al., "Development of Formulations that Enhance Physical Stability of Viral Vectors for Gene Therapy," Gene Therapy, 2001, Vol. 8, pp. 1281-1290:
- A21. CULVER et al., "Gene Therapy for Cancer," <u>Treatment Information Group (TIG)</u>, May 1994, Vol. 10, No. 5, pp. 174-178;
- A22. DESCAMPS et al., "Strategies for Cancer Gene Therapy Using Adenoviral Vectors," <u>Journal of Molecular Medicine</u>, 1996, Vol. 74, pp. 183-189.
- A25. GARDLIK et al. "Vectors and Delivery Systems in Gene Therapy," Medical Science Monitor, 2005, Vol. 11, No. 4, pp. RA110-121;
- A26. GOEDDEL, et al., "The Structure of Eight Distinct Cloned Human Leukocyte Interferon cDNAs," Nature, 1981, Vol 290, pp. 20-26;
- A27. GONCALVES, Manuel A.F.V., "A Concise Peer Into the Background, Initial Thoughts and Practices of Human Gene Therapy," <u>BioEssays</u>, 2005, Vol. 27, pp. 506-517;
- A29. HADDADA et al., "Gene Therapy Using Adenovirus Vectors," <u>Current Topics in Microbiology and Immunology</u>, 1995, Vol. 199, No. 3, pp. 297-306;
- A30. HADDADA et al., "Adenoviral Interleukin-2 Gene Transfer into P815 Tumor Cells Abrogates Tumorigenicity and Induces Antitumoral Immunity in Mice," <u>Human Gene Therapy</u>, 1993, Vol 4, pp. 703-711;
- A31. HARRIS et al., "Adenovirus-mediated p53 Gene Transfer Inhibist Growth of Human Tumor Cells Expressing Mutant p53 Protein," Cancer Gene Therapy, 1996, Vol. 3, No. 2, pp. 121-130;
- A34. O'DONNELL et al., "Salvage Intravescal Therapy with Interferon- α 2B Plus Low Dose Bacillus Calmette-Guerin is Effective in Patients with Superficial Bladder Cancer in Whol Bacillus Calmette-Guerin Alone Previously Failed," <u>The Journal of Urology</u>, October 2001, Vol 166, pp. 1300-1305.

Heidrun Engler et al.

Application No.: 10/055,863

Page 3

In accordance with 37 CFR §1.98(d), copy of the references can be found in Application No. 08/889,355, filed July 8, 1997 (Attorney Docket No. 016930-000811US):

A23. ECK et al., "Gene Based Therapy," <u>The Pharmacological Basis of Therapeutics</u>, 1995, 9th edition, Goodman & Gilman, pp. 77-101.

In accordance with 37 CFR §1.98(d), copies of the references can be found in Application No. 10/454,662, filed June 3, 2003 (Attorney Docket No. 016930-000815US).

- A10. WO 1995/10265 published on April 20, 1995;
- A11. WO 1997/11682 published on April 3, 1997;
- A12. ASSOCIATED PRESS, "One Way to Kill Cancer: Give a Cold," <u>The Augusta Chronicle</u>, May 20, 1997, (accessed by PTO on World Wide Web at CNN.com on May 22, 1997);
- A17. CONNOR et al., "Identification of Polyamides that Enhance Adenovirus-Mediated Gene Expression in the Urothelium," Gene Therapy, 2001, Vol. 8, pp. 41-48;
- A20. CRYSTAL et al., "Transfer of Genes to Humans: Early Lessons and Obstacles to Success," Science, 1995, Vol. 270, pp.404-410;
- A24. FRIEDMAN, Theodore, "Gene Therapy of Cancer Through Restoration of Tumor-Suppressor Functions?" Cancer, 1992, Vol. 74, pp. 183-189;
- A28 GUZMAN et al., "Efficient and Selective Adenovirus-Mediated Gene Transfer into Vascular Neointima" <u>Circulation</u>, 1993, Vol. 88, Issue 4, No. 11, pp. 1-80;
- A32. HJEMELAND et al., "A New Class of Nonionic Detergents with a Gluconamide Polar Group," Analytical Biochemistry Vol. 130, pp. 485-490;
- A33. LEDLEY, Fred D. "Nonviral Gene Therapy: The PRomise of Genes as Pharmaceutical Products" <u>Human Gene Therapy</u>, September 1995, Vol. 6, pp. 1129-1144;
- A35. ORKIN et al., "Report and Recommendations of the Panel to Assess the NIH Investment in Research on Gene Therapy," Issued by the U.S. National Institutes of Health, Dec. 1995;
- A36. PAGLIARO et al., "Repeated Intracesical Instillations of an Adnoviral Vector in Patients with Locally Advanced Bladder Cancer: A Phase I Study of *p53* Gene Therapy," Journal of Clinical Oncology, June 15, 2003, Vol. 21, No. 12, pp. 2247-2253;

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Heidrun Engler et al.

Application No.: 10/055,863

Page 4

A37. SCHMOLKA, Irving R., "A Comparison of Block Copolymer Sufactant Gels¹," JAOCS, March 1991, Vol. 68, no. 3, pp. 206-209;

A38. YAMASHITA et al., "Syn3 Provides High Levels of Intrvescal Adnoviral-Mediated Gene Transfer for Gene Therapy of Genetically Altered Urothelium and Superficial Baldder Cancer," Cancer Gene Therapy, 2002, Vol. 9, pp. 681-686.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed before the mailing date of the final Office Action or Notice of Allowance.

Please charge the IDS fee of \$180 to Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

Frank J. Mycroft Reg. No. 46,946

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, Eighth Floor San Francisco, California 94111-3834

Tel: 925-472-5000 Fax: 925-472-8895

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60897911 v1

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Complete if Known ees puts vant to the Consolidated Appropriations Act, 2005 (H.R. 4818). 10/055,863 **Application Number** January 22, 2002 Filing Date PATENT & TRI For FY 2006 Engler, Heidrun First Named Inventor Elli Peselev **Examiner Name** Applicant claims small entity status. See 37 CFR 1.27 1623 Art Unit TOTAL AMOUNT OF PAYMENT (\$) 180 016930-000816US Attorney Docket No. METHOD OF PAYMENT (check all that apply) Credit Card | Money Order | None Other (please identify): Check Deposit Account Deposit Account Number: 20-1430 Deposit Account Name: Townsend and Townsend and Crew LLP For the above-identified deposit account, the Director is hereby authorized to: (check all that apply) Charge fee(s) indicated below, except for the filing fee Charge fee(s) indicated below Charge any additional fee(s) or underpayments of fee(s) Credit any overpayments under 37 CFR 1.16 and 1.17 WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. **FEE CALCULATION** 1. BASIC FILING, SEARCH, AND EXAMINATION FEES **EXAMINATION FEES** FILING FEES SEARCH FEES **Small Entity Small Entity** Small Entity Fees Paid (\$) Fee (\$) Fee (\$) Fee (\$) Fee (\$) Fee (\$) Fee (\$) **Application Type** 250 200 100 150 500 300 Utility 50 65 130 100 100 Design 200 80 150 160 100 300 Plant 200 600 300 500 250 300 Reissue 150 0 0 0 0 200 100 **Provisional Small Entity** 2. EXCESS CLAIM FEES Fee (\$) Fee (\$) **Fee Description** 25 50 Each claim over 20 (including Reissues) Each independent claim over 3 (including Reissues) 100 200 360 180 Multiple dependent claims Multiple Dependent Claims Fee Paid (\$) **Total Claims Extra Claims** Fee (\$) Fee (\$) Fee Paid (\$) -20 or HP = HP = highest number of total claims paid for, if greater than 20 Fee (\$) **Extra Claims** Indep. Claims -3 or HP = HP = highest number of independent claims paid for, if greater than 3 3. APPLICATION SIZE FEE If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). Number of each additional 50 or fraction thereof Fee (\$) **Total Sheets** Extra Sheets - 100 = /50 = (round **up** to a whole number) x Fees Paid (\$) 4. OTHER FEE(S)

SUBMITTED BY			
Signature	7/16/12	Registration No. (Attorney/Agent) 46,946	Telephone 925-472-5000
Name (Print/Typ	pe) Frank J. Mydrott		Date October 23, 2006

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Submission of Information Disclosure Stmt

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 6

60897911 v1

	Complete if Known
Application Number	10/055,863
Filing Date	January 22, 2002
First Named Inventor	Engler, Heidrun
Art Unit	1623
Examiner Name	Elli Peselev
Attorney Docket Number	016930-000816US

Examiner Initials*	Cite No. ¹	Document Number Number Kind Code ^{2 (f known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	US-2003-0170216	09/11/2003	ihnat et al.	
	A2	US-2003-0211598	11/13/2003	Engler et al.	
	A3	US-2004-0014709	01/22/2004	Engler et al.	
	A4	US-2005-0025742	02/03/2005	Engler et al.	
	A5	US-2006-0199782	09/07/2006	Engler et al.	
	A6	US-6,165,779	12/26/2000	Engler et al.	
	A7	US-6,312,681	11/6/2001	Engler et al.	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	A8	US-6,392069	05/21/2002	Engler et al.	
	A9	US-7,002,027	02/21/2006	Engler et al.	

		**		FOREIGN I	PATENT DOCU	IMENTS				
Examiner		Fo	reign Patent Do	ocument	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages	6		
Initials*	No. ¹			Country Code ³	Number ⁴	Kind Code ⁵ (<i>if known</i>)	MM-DD-YYYY	Applicant of Cited Document	or Relevant Figures Appear	T°
	A10	wo	95/10265	A1	04/20/1998	Cytryx Corporation				
	A11	wo	97/11682	A2	04/03/1997	University of Pittsburgh				

Examiner Signature	Date Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Complete if Known Substitute for form 1449B/PTO Application Number 10/055,863 Filing Date **INFORMATION DISCLOSURE** January 22, 2002 STATEMENT BY APPLICANT First Named Inventor Engler, Heidrun Art Unit 1623 Examiner Name (Use as many sheets as necessary) Elli Peselev Attorney Docket Number 016930-000816US 6 2 of Sheet

		NON PATENT LITERATURE DOCUM	ENTS		·
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the amagazine, journal, serial, symposium, catalog, etc.), date, pagand/or country where put	e(s), volume-iss	propriate), title of the item (book, sue number(s), publisher, city	T ²
	A12	ASSOCIATED PRESS, "One Way to Kill Cancer: Giv 20, 1997, (accessed by PTO on World Wide Web at 0			
	A13	BLAESE et al., "Vectors in Cancer Therapy: How Will 1995, Vol. 2, No. 4, pp. 291-297.	I They Delive	r?" <u>Cancer Gene Therapy</u> ,	
	A14	BRAMSON et al., "The USe of Adenoviral Vectors for Vivo," Current Opinion in Biotechnology, 1995, Vol. 6		_	
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	A16	CALBIOCHEM, "Biochemical/Immunochemical 1992 1992, pp. 322, 05, 65, 259.	Catalog," <u>Ca</u>	Ibiochem Biochemicals,	
	A17	CONNOR et al., "Identification of Polyamides that Enleappression in the Urothelium," Gene Therapy, 2001,			
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	A21	CULVER et al., "Gene Therapy for Cancer," <u>Treatmer</u> Vol. 10, No. 5, pp. 174-178.	nt Informatior	n Group (TIG), May 1994,	
	A22	DESCAMPS et al., "Strategies for Cancer Gene There of Molecular Medicine, 1996, Vol. 74, pp. 183-189.	apy Using Ac	denoviral Vectors," <u>Journal</u>	
	A23	ECK et al., "Gene Based Therapy," The Pharmacolog edition, Goodman & Gilman, pp. 77-101.	ical Basis of	Therapeutics, 1995, 9th	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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	Complete if Known	
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Art Unit	1623	
Examiner Name	Elli Peselev	
Attorney Docket Number	016930-000816US	

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	A24	FRIEDMAN, Theodore, "Gene Therapy of Cancer Through Restoration of Tumor-Suppressor Functions?" Cancer, 1992, Vol. 74, pp. 183-189.	
	A25	GARDLIK et al. "Vectors and Delivery Systems in Gene Therapy," Medical Science Monitor, 2005, Vol. 11, No. 4, pp. RA110-121.	
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Examiner	Date
Signature	Considered
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STATEMENT BY APPLICANT

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	A35	ORKIN et al., "Report and Recommendations of the Panel to Assess the NIH Investment in Research on Gene Therapy," Issued by the U.S. National Institutes of Health, Dec. 1995.	
	A36	PAGLIARO et al., "Repeated Intracesical Instillations of an Adnoviral Vector in Patients with Locally Advanced Bladder Cancer: A Phase I Study of p53 Gene Therapy," Journal of Clinical Oncology, June 15, 2003, Vol. 21, No. 12, pp. 2247-2253.	
	A37	SCHMOLKA, Irving R., "A Comparison of Block Copolymer Sufactant Gels ¹ ," <u>JAOCS</u> , March 1991, Vol. 68, no. 3, pp. 206-209.	
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